

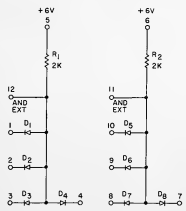
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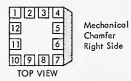
Functional Description

The AND OR Extender, AOX-1A is used to extend the AND fan-in of either the AI-1A, AI-2A or AOI-2A modules. The resistors R_1 and R_2 are not incorporated in this application. The AOX-1A can also be used to extend the OR fan-in of the AOI-2A.

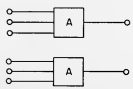
Schematic



Terminal Configuration



Block Diagram



Maximum Ratings

Diode Breakdown Voltage = 13V

Maximum Diode Current = 5.0 Milliamps

AOX-1A Module Functional Tests

INDIVIDUAL DEVICE PARAMETER TESTS						
TESTS	COM-PONENTS	TEST CONDITIONS	T °C	LIMITS		UNITS
				MIN	MAX	
V_F	$D_1 - D_8$	$I_F = 0.1\text{ma}$	25	.51		V
V_F	$D_1 - D_8$	$I_F = 0.5\text{ma}$	25	.58		V
V_F	$D_1 - D_8$	$I_F = 1.0\text{ma}$	25	.61		V
V_F	$D_1 - D_8$	$I_F = 3.0\text{ma}$	25		.84	V
V_F	$D_1 - D_8$	$I_F = 5.0\text{ma}$	25		.87	V
BV_R	$D_1 - D_8$	$I_R = 10\mu\text{a}$	25	13		V
I_R	$D_1 - D_8$	$V_R = 12\text{V}$	75		0.5	μa
RESISTOR TOLERANCE	$R_1 - R_2$		25 75	-8	+8	%

Circuit Characteristics

Input requirements are the same as AOI-2A module

Maximum Power Supply Current Requirements (per module)

+6V	$\frac{\text{ON}}{4.4\text{ma}}$	$\frac{\text{OFF}}{6.0\text{ma}}$
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Maximum Power Dissipation

$\frac{\text{ON}}{22\text{mw}}$	$\frac{\text{OFF}}{38\text{mw}}$
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$$\text{Average Normal Power Dissipation} = \frac{\text{NOMINAL ON} + \text{NOMINAL OFF}}{2} = 25\text{mw}$$